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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,063	02/04/2004	Murray S. Toas	D0932-00447	5057

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EXAMINER

MATZEK, MATTHEW D

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/772,063

Applicant(s)

TOAS ET AL.

Examiner

Matthew D. Matzek

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-10,13-17 and 38-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-10,13-17 and 38-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Response to Amendment

1. The amendment dated 8/4/2006 has been fully considered and entered into the Record. Claims 1-6, 8-10, 13-17 and 38-50 are currently active. New claims 42-50 contain no new matter. The previously applied prior art rejections have been withdrawn as they failed to teach antifungal/antimicrobial species in amended claims 1, 14 and 38-41. New art rejections are as follows.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-6, 8-10, 13-17 and 38-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fay et al. (US 2004/0185204) and in view of Lewis et al. (US 4,105,431) and further in view of Herbst (US 6,528,556) and as evidenced by Furnacecompare.com and Progress-energy.com.

a. Fay et al. teach a fungi-growth inhibiting facing of a building insulation assembly including a central field portion (Abstract). The central field portion may comprise randomly oriented, entangled, glass fibers that are bound by an adhesive binder [0031]. The insulation may be faced with kraft paper with a basis weight of 30 to 40 pounds/3000 ft² [0002]. The kraft paper facing may comprise a fungicide, biocide and pesticide and may be adhered via a bituminous adhesive [0007].

b. The biocide disclosed by Fay et al. is silver zeolyte, which is commonly used in protecting food packages through its release of silver and is sold as KATHON®, by ROHM AND HAAS®, a biocide fungi-growth inhibiting agent designed for insulation

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articles [0047]. As it is commonly used in protecting food packages the said biocide is presumed to be nontoxic and noncarcinogenic to humans and does not present significant toxic residue.

c. The article of Fay et al. is necessarily heat resistant to temperatures of 250 °F and molten bituminous adhesive as the applied reference teaches the application of bituminous adhesive to adhere the kraft paper facing to the insulation. Claim 16 is rejected as the bituminous layer may function as a vapor barrier [0050].

d. With regards to the claimed R-values of claim 8, these values are consistent with those of common fiberglass insulation articles known in the art, as evidenced by Furnacecompare.com. It is further noted that insulation capability (R-value) is generally given on a per inch basis and a final R-value is calculated by multiplying the R-value per inch by the total thickness of the insulation. Fiberglass batts have an average R-value of 3.25 per inch and are known to have total R-values up to 30 as evidenced by Progressive-energy.com. Fay et al. disclose a fiberglass insulation comprising fiberglass, binder and biocide, but are silent as to the R-values of said invention. It is reasonable, however to presume that since the prior art meets the physical and chemical limitation of fiberglass batts and the body of the claim the said featured property is inherent to said insulation article thus providing the present invention the desired physical properties. This is further evidenced by the websites provided and prior Office Actions and provided along with the instant Action.

e. The publication of Fay et al. is silent as to the application of an antifungal/antimicrobial agent in the amount of between 12-24 ppm of the dry weight of the cellulosic facing.

f. Lewis et al. teach the use of novel isothiazolone compositions, which provide a spectrum of biocidal properties and are particularly effective for the control of microorganisms (Abstract). Biocides are incorporated into paper and paper products for the purpose of imparting an antimicrobial residual to control growth of fungi (mildew) and bacteria. The isothiazolones of the invention have been found to be useful as bacteriostats and mildewstats for paper and paper products. When used as paper bacteriostats and mildewstats, the isothiazolones are generally applied to the paper in aqueous solution by a conventional technique such as dipping or spraying. The 3-isothiazolone can have a wide concentration in the solution and will generally be about 0.1 to about 10,000 parts per million by weight, and preferably about 10 to about 1000 parts per million. Depending on the amount of solution uptake by the paper, the concentration of isothiazolone in the treated paper will usually range from about 0.2 to about 30,000 parts per million, and preferably about 25 to 3,000 parts per million by weight (col. 31, line 40-col. 32, line 38).

g. Since Fay et al. and Lewis et al. are from the same field of endeavor, (i.e. antimicrobial treated paper), the purpose disclosed by Lewis et al. would have been recognized in the pertinent art of Fay et al.

h. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the insulative article of Fay, et al. with a kraft paper

facing at the biocide at the level disclosed by Lewis et al. motivated by the desire to successfully create a microbial and fungicidal resistant insulative article that possesses a spectrum of biocidal properties and are particularly effective for the control of microorganisms (Abstract) at the lowest effective levels in order to minimize human exposure to said biocides. Further support for the combination of references can be found in the fact that both Fay et al. and Lewis et al. both teach the use of thiazole fungicides ([0047], Fay et al.; Example F, Lewis et al.), which is also claimed by Applicant in claim 7.

i. It should be noted that optimizing the amount or type of biocide included in the insulation article or restraining its content within set values are result effective variables. For example, manipulating the quantity of antifungal/antimicrobial agent on the cellulosic facing to attain a predetermined value or be in accordance with a standard/test. Biocide/fungicide selection is also a result effective variable. Therefore, it would have been obvious for a person having ordinary skill in the art at the time the invention was made to have made the Fay et al. invention to contain a antifungal/antimicrobial level able to pass ASTM C1338, ASTM D-2020, TAPPI Test T487, or a combination thereof.

In re Boesch, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

j. Lewis et al. disclose the claimed biocide levels except the disclosure only teaches isothiozolones as biocides, Herbst et al. show that chlorinated phenols and copper sulfate are equivalent structures known in the art (col. 5, lines 50-67) for use as biocides. Therefore, because these two biocides were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute isothiozolones for chlorinated phenols or copper sulfates.

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3. Claims 1-6, 8-10, 13-17 and 38-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fay et al. (US 2004/0185204) and in view of Lewis et al. (US 4,105,431) as demonstrated supra and further in view of Ghosh et al. and as evidenced by Furnacecompare.com and Progress-energy.com.

Lewis et al. disclose the claimed biocide levels except the disclosure only teaches isothiozolones as biocides, Ghosh et al. show that methylene-bis-thiocyanate and dodecylguanidine hydrochloride are equivalent structures known in the art (col. 5, line 1-col. 6, line 5) for use as biocides. Ghosh continues by stating that combinations of biocides may be advantageously used (col. 7, lines 63-65). Therefore, because these two biocides were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute isothiozolones for a mixture of methylene-bis-thiocyanate and dodecylguanidine hydrochloride.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is (571) 272-2423. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mdm

MDM

Norca L. Torres-Velazquez

Norca L. Torres-Velazquez
Primary Examiner
Art Unit 1771

9/22/06